

REMARKS

This communication is a full and timely response to the final Office Action dated May 3, 2005 (Paper No./Mail Date 20050428). By this communication, claims 1, 2, 9, 10, and 29 have been amended.

Claim 1 has been amended to recite a pattern depth of the diffraction grating is between a first depth that maximizes the primary diffraction efficiency of the first reflected light beam and a second depth that maximizes the primary diffraction efficiency of the second reflected light beam. Support for the subject matter added to claim 1 can be found variously throughout the specification, for example, at paragraph [0080] of corresponding U.S. Patent Application Publication No. 20010021163. No new matter has been added.

Claim 2 has been amended to recite a pattern depth of the diffraction grating is between a first depth that maximizes the primary diffraction efficiency of the first reflected light beam and a second depth that maximizes the primary diffraction efficiency of the second reflected light beam. Support for the subject matter added to claim 2 can be found variously throughout the specification, for example, at paragraph [0080] of corresponding U.S. Patent Application Publication No. 20010021163. No new matter has been added.

Claim 9 has been amended to recite a pattern depth of the diffraction grating is between a first depth that maximizes the primary diffraction efficiency of the first reflected light beam and a second depth that maximizes the primary diffraction efficiency of the second reflected light beam. Support for the subject matter added to claim 9 can be found variously throughout the specification, for example, at paragraph [0080] of corresponding U.S. Patent Application Publication No. 20010021163. No new matter has been added.

Claim 10 has been amended to recite a pattern depth of the diffraction grating is between a first depth that maximizes the primary diffraction efficiency of the first reflected light beam and a second depth that maximizes the primary diffraction efficiency of the second reflected light beam. Support for the subject matter added to claim 10 can be found variously throughout the specification, for example, at paragraph [0080] of corresponding U.S. Patent Application Publication No. 20010021163. No new matter has been added.

Claim 29 has been amended to recite a pattern depth of the diffraction grating is between a first depth that maximizes the primary diffraction efficiency of the first reflected light beam and a second depth that maximizes the primary diffraction efficiency of the second reflected

light beam. Support for the subject matter added to claim 29 can be found variously throughout the specification, for example, at paragraph [0080] of corresponding U.S. Patent Application Publication No. 20010021163. No new matter has been added.

Claims 1, 2, 9, 10, and 17-29 are pending where claims 1, 2, 9, 10, and 29 are independent.

Rejections Under 35 U.S.C. §103

Claims 1, 2, 9, 10, 17, 18, 20, 21, 23, 24, 26, 27, and 29 were rejected under 35 U.S.C. §103(a) as unpatentable over *Uchizaki et al.*, U.S. Patent No. 6,646,975. Applicant respectfully traverses this rejection.

Claim 1 recites an optical pickup device comprising a first light source for emitting a first light beam having a first wavelength; a second light source for emitting a second light beam having a second wavelength different from the first wavelength; an objective lens for focusing said first light beam or said second light beam to the signal recording surface of an optical recording medium of a first type matching to the first wavelength or that of an optical recording medium of a second type matching to the second wavelength, whichever appropriate; a photodetector for detecting the light beam focused on the signal recording surface of the optical recording medium of the first type or that of the optical recording medium of the second type, whichever appropriate, by the objective lens and reflected by the signal recording surface; a diffraction element arranged in the light path from the light sources to the photodetector by way of one of the first or second type of optical recording medium, the diffraction element having a first diffraction angle and a second diffraction angle, wherein a difference between the first diffraction angle and the second diffraction angle is predetermined to offset a distance separating the first light source and the second light source; and at least one of the first light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the first type and reflected by the reflecting surface, and the second light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the second type and reflected by the reflecting surface being diffracted by the diffraction element, wherein the first diffraction angle diffracts the first reflected light beam and the second diffraction angle diffracts the second reflected light beam so that the first reflected light beam and the second reflected light beam being focused to a same spot on the light receiving surface of the photodetector, wherein the diffraction element includes

a pair of opposite surfaces and a diffraction grating is disposed on a lower surface of the pair of opposite surfaces, and wherein a pattern depth of the diffraction grating is between a first depth that maximizes the primary diffraction efficiency of the first reflected light beam and a second depth that maximizes the primary diffraction efficiency of the second reflected light beam.

Each of claims 2, 9, 10, and 29 similarly recite a pattern depth of the diffraction grating is between a first depth that maximizes the primary diffraction efficiency of the first reflected light beam and a second depth that maximizes the primary diffraction efficiency of the second reflected light beam.

Uchizaki discloses an optical system having two laser light sources enclosed in a single integrated unit 11 that emit light having 650 nm and 780 nm, respectively. These beams travel through an optical path having a collimator lens 14, a re-orienting mirror 15, a wavelength selecting filter 16, an objective lens 17, a recording medium (DVD, CD, CD-R), and a photodetector PD35. This system may also include a holographic element 33 disposed strategically in the optical path. The holographic element 33 diffracts the light, which is emitted from either of the two light sources (RL1 and RL2) and reflected from the recording medium, such that the two diffracted beams (DL1P and DL2P) are converged on the same position of the photodetector PD 35. As shown in Figures 3A and 3B, the holographic element 33 has a diffraction grating on only one surface, and in particular the top surface of the holographic element 33.

Uchizaki, however, fails to disclose, teach, or suggest at least a pattern depth of the diffraction grating is between a first depth that maximizes the primary diffraction efficiency of the first reflected light beam and a second depth that maximizes the primary diffraction efficiency of the second reflected light beam. In fact, *Uchizaki* fails to provide any discussion on the depth of the pattern on the diffraction grating. Thus, a *prima facie* case for obviousness has not been established.

To establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Moreover, obviousness "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." *ACS Hosp. Sys. V. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). For at least the above reasons, Applicant respectfully requests that the rejection of claims 1, 2, 9, 10, and 29 be withdrawn, and these claims be allowed.

Claims 17 and 18 depend from claim 1, claims 20 and 21 depend from claim 2, claims 23 and 24 depend from claim 9, and claims 26 and 27 depend from claim 10. By virtue of this dependency, Applicant submits that claims 17, 18, 20, 21, 23, 24, 26, and 27 are allowable for at least the same reasons given above with respect to independent claims 1, 2, 9 and 10, where applicable. In addition, Applicant submits that claims 17, 18, 20, 21, 23, 24, 26, and 27 are further distinguished over *Uchizaki* by the additional elements recited therein, and particularly with respect to each claimed combination. Applicant respectfully requests, therefore, that the rejection of claims 17, 18, 20, 21, 23, 24, 26, and 27 under 35 U.S.C. §102 be withdrawn, and these claims be allowed.

At paragraphs 7 and 8, the Office Action discusses the teachings of alleged prior art references *Shimano*. However, the Office Action fails to properly introduce the application of this reference under §103. Nor does the Office Action express what deficiencies of *Uchizaki* that *Shimano* is used to remedy. For at least these reasons, Applicant respectfully submits that the rejection is improper. In any event, *Shimano* fails to disclose, teach, or suggest at least a pattern depth of the diffraction grating is between a first depth that maximizes the primary diffraction efficiency of the first reflected light beam and a second depth that maximizes the primary diffraction efficiency of the second reflected light beam. Therefore, *Shimano* either singly or combined with any of the other prior art of record fails to establish a *prima facie* case of obviousness with respect to claims 1, 2, 9, 10, 17, 18, 20, 21, 23, 24, 26, 27, and 29.

Claims 19, 22, 25, and 28 were rejected under 35 U.S.C. §103(a) as unpatentable over *Uchizaki* in view of *Oochida*, U.S. Patent No. 6,584,060. Applicant respectfully traverses this rejection.

Claim 19 depends from claim 1, claim 22 depends from claim 2, claim 25 depends from claim 9, and claim 28 depends from claim 10. By virtue of this dependency, Applicant submits that claims 19, 22, 25, and 28 are allowable for at least the same reasons given above with respect to claims 1, 2, 9, and 10, where applicable. In addition, Applicant submits that claims 19, 22, 25, and 28 are further distinguished over *Uchizaki* and *Oohchida* by the additional elements recited therein, and particularly with respect to each claimed combination. Applicant respectfully requests, therefore, that the rejection of claims 19, 22, 25, and 28 under 35 U.S.C. §103 be withdrawn, and these claims be allowed.

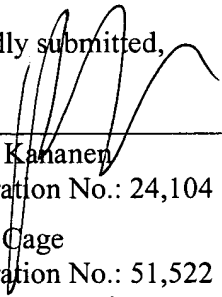
Conclusion

Based on at least the foregoing amendments and remarks, Applicants submit that claims 1, 2, 9, 10, and 17-29 are allowable, and this application is in condition for allowance. Accordingly, Applicants request favorable reexamination and reconsideration of the application. In the event the Examiner has any comments or suggestions for placing the application in even better form, Applicants request that the Examiner contact the undersigned attorney at the number listed below.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-2045 from which the undersigned is authorized to draw.

Dated: June 1, 2005

Respectfully submitted,

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